IN-CIRCUIT EMULATOR AND POD SYNCHRONIZED BOOT

ABSTRACT OF THE DISCLOSURE

A synchronized boot process for an In-Circuit Emulator system. A real microcontroller is operated in lock-step synchronization with a virtual microcontroller to permit In-Circuit Emulation that allows debugging of the real microcontroller without interfering with its real time operation. The synchronized boot is accomplished by running boot code in the real microcontroller while the virtual microcontroller runs dummy code with the same timing as the boot code. Registers and memory contents are then copied from the real microcontroller to the virtual microcontroller to complete initialization and enter a state of readiness for lock-step operation.